

1. overview

1.1A Brief Introduction

The BK-L216II printer is a high performance thermal printer with a cutter module and a paper tolerance mechanism for a maximum diameter of 203mm and a maximum print width of 216mm. It can be widely used in information query terminals, data communication terminals, detection instrument terminals and other self-service terminals.

The printer configure the following components:

- Thermal printing unit
- Paper bearing mechanism (optional, or configured paper channel mechanism)
- Paper roll bracket (optional, or not configured)
- Control board
- Cut the knife

Depending on the paper roll installation mode, the printer can be divided into horizontal structure and vertical structure.

BK-L216II can connect to other devices via serial and parallel interface / USB interfaces, while providing simple operation and easy maintenance of drivers under the WINDOWS98/NT4.0/2000/XP/LINUX operating system.

1.2 Main features

- **Print out**
 - High-speed printing
 - Low-noise thermal printing
 - High reliability
- **PRSENTER**
 - Paper-capacity function
 - Paper recycling function
 - Paper-containing function
- **Application software**
 - Character processing: characters can be amplified horizontally and vertically (1-6 times) and rotated (0°, 90°, 180°, 270°), Backback, underlined, inverted printing
 - Barcode printing: Barcode can be printed with the barcode instructions, and the barcode can be printed in both horizontal and vertical directions
 - Character dimensions (FONT0, FONT1) can be selected by instructions
- **Printer maintenance**
 - Easy to replace the paper rolls
 - Print head cleaning is convenient
 - Different features and parameters can be set through the software
 - Auto-cut the paper
 - Semiautomatic put on paper
 - Marking identification and marking verification function

- The printer firmware program can be upgraded online

2 Main technical indicators

2.1 Technical specifications

The Project	Parameters	
	203DPI models	The 300DPI model
Print mode	Line Thersensitivity	
Resolution	203DPI	300DPI
Paper width	210mm-216mm	210mm-216mm
Print the width	M ax.216mm (8.5 ")	M ax.216mm (8.5 ")
	M ax.1728 Point	M ax.2560 Point
Print the amplitude (Drive)	Maximum value: 1,000 mm Minimum value: 82.5mm	
Print speed	125mm/s	100mm/s
RAM memory	8MB SDRAM	
Print out Flash memory	1MB/2MB/4MB	
Print head temperature detection	Thermistor	
Print head position probe	Micro-operated switch	
Paper / marker detection	Photoelectric sensor	
The paper will be detected	Photoelectric sensor	

The Project	Parameters	
	203DPI models	The 300DPI model
Communication interface	RS-232,Centronics (optional), USB(optional)	
Barcode	UPC-A, UPC-E, EAN 13, EAN 8 CODE 39, CODE 93, ITF, CODABAR, CODE128, PDF417	
Barcode Character set	English font 0:12 × 24	English font 0:18 × 34 English font 1:13 × 24
	English font: 1:9 × 17	Character set: 36 X36
Drawing Character	Character set	Character set: 24X24
	Choose from Simplified Chinese (GB2312), Simplified Chinese (GB18030), Traditional Chinese, Korean, and Japanese characters.	
Drawing	Character processing	Underscore, make bold, and rotate (0°, 90°, 180°, 270°) 、 Reverdisplay, magnification (1-6 x)
	Drawing	Support for BMP bitmap download to RAM, FLASH Support for direct bitmap printing
Media	Paper type	Continuous paper / marking paper (folding paper can be used)
	Paper roll outer diameter	Max.203mm
	Inner diameter of the core shaft	25.4mm or ≥ 50mm
	Paper thickness	0.06~0.1mm
Thermo-sensitive layer	External location	

The Project		Parameters	
		203DPI models	The 300DPI model
Power supply	Enter it	AC 220V±5%,50/60Hz	
	Output	DC 24V,2.5A	
PRSEN TER	Paper-out speed	≥400mm/s	
	Recovery speed	≥400mm/s	
	Working mode	fallback / paper / instruction control / off	
Reliable Sex	Print head life	≥100Km	
	Cutting knife life	≥ 500,000,(0.08mm thick thermal paper)	
Environ ment	MTBF	360,000 hours	
	Working environment	5°C to 45°C,20% to 90% RH (40°C)	
Require ments	Storage environment	-40°C to 60°C,20% to 93% RH (40°C)	
Physics Feature s	Overall dimensions	212(L) ×294(W)×97(H)	
	Weight	About 3.8kg (without paper rolls and racks)	

Table 2.1.1 Technical specifications table

Note:

- (1) DPI: number of print points per inch (1 inch ≈ 25.4 mm);
- (2) Character spacing can be adjusted by instruction ESC SP;
- (3) The actual print speed is related to the data transmission speed, print concentration, print duty cycle, control instructions used, power supply voltage, etc., and may be less than 125mm/s (203DPI) or 100mm/s (300DPI).

2.2 Paper specifications

- Paper Type: Continuous paper / marking paper
- Paper supply method: Paper roll / folding paper
- Paper width: 210mm-216mm
- Paper thickness: 60um-100um
- Thermolayer: External location
- Paper Roll Specification: Standard core shaft inner diameter: 50mm

Optional core shaft inner diameter: 25.4mm

or \geq 50mm

Maximum paper roll outer diameter: 203mm

- Recommended paper:

- Recommended specifications for continuous paper sheets:

Paper model	Manufacturer
TF50KS-E2C	Nippon Paper Industries Co.,Ltd
F240AC/F220-VP	Mitsubishi Paper Mill CO.,LTD
KF060-FEAH	NEW OJI Paper CO.,LTD.
F70NA	FUJI PHOTO FILM CO.,LTD
FV230A1	MITSUBISHI PAPER MILL CO.,LTD.

Table 2.2.1 Recommended paper for the printer

- Recommended Specification for marking paper:

The printer can work in tag paper mode and position the cutting position according to the tag. In addition to meeting the requirements of the standard paper, the marking paper shall also meet the

following requirements:

L1 tag length: $20\text{mm} \leq L1$

L2 mark height: $4\text{mm} \leq L2 \leq 8\text{ mm}$

Distance of the adjacent markers of the L3: $82.5\text{mm} \leq L3 \leq 305\text{mm}$

Mark Location: Can be located to the right, middle, or left of the paper

Reflectivity Rate: The marking part shall be located on the back of the thermal sensitivity layer with a reflectivity less than 15% and other parts greater than 85%; in the area between the markers, there shall be no patterns such as advertising, posters, etc.

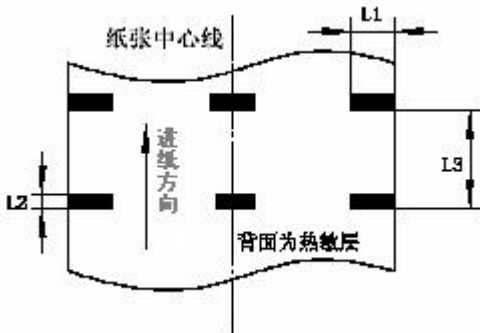


Figure 2.2.1 Mark position indication

Note:

- ◇ Set the tag height by adjusting the configuration of the printer.
- ◇ There are three sensor fixed positions in the paper channel, the printer installed from the factory, the default position in the middle of the paper channel.
- ◇ The printer does not detect the label when the printer is still. If the paper is taken artificially away, the printer does not consider the missing paper, which is to ensure that the printer does not misreport the missing paper when the mark stays on the printer sensor.
- Recommended specification for folding paper:

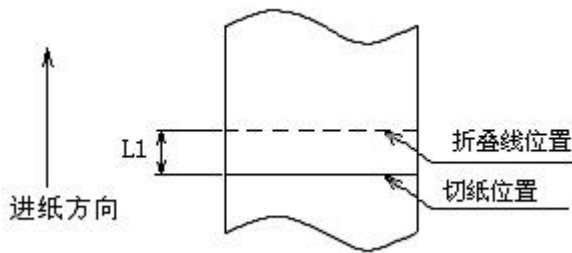


Figure 2.2.2 Folline position and paper cutting position

When the printer uses folding paper, the position of the folding line is not allowed in the printing area, otherwise the paper jam will occur.

The paper cutting position is recommended to be below the folding line at 0.5~2mm, (reverse the feed direction) or the paper jam

will occur.

For the position relationship of folding line and marking, refer to the recommended specifications of folding paper and marking paper.



Note:

- ✧ Please choose the recommended or equivalent quality of paper, otherwise it will affect the print quality or even reduce the print head life.
- ✧ Do not stick the paper to the rolled core.
- ✧ If the printing paper is contaminated by the chemical preparation or oil, it may fade or reduce the sensory heat and affect the printing effect.
- ✧ Do not rub the surface of the printed paper with nails or hard objects, or it may fade.
- ✧ When the ambient temperature is around 70°C, the printed paper will fade, so special attention should be paid to the ambient temperature, humidity, and the impact of light.

3 Printer construction and function

3.1 Appearance and components

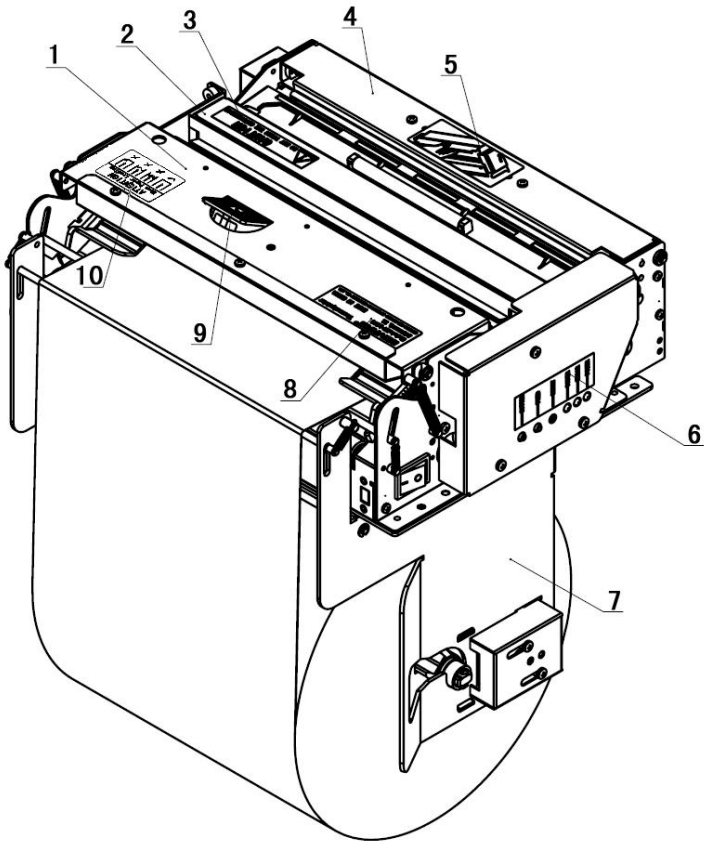


Figure 3.1.1 Vertical structure

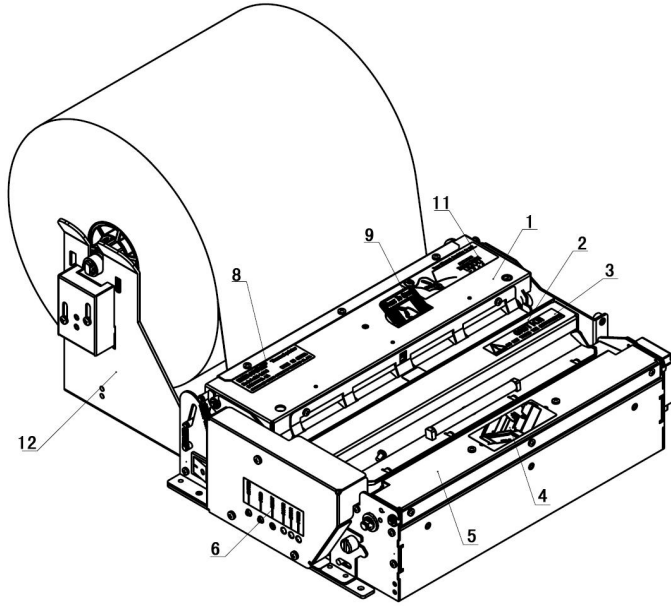


Figure 3.1.2 Recumbent structure

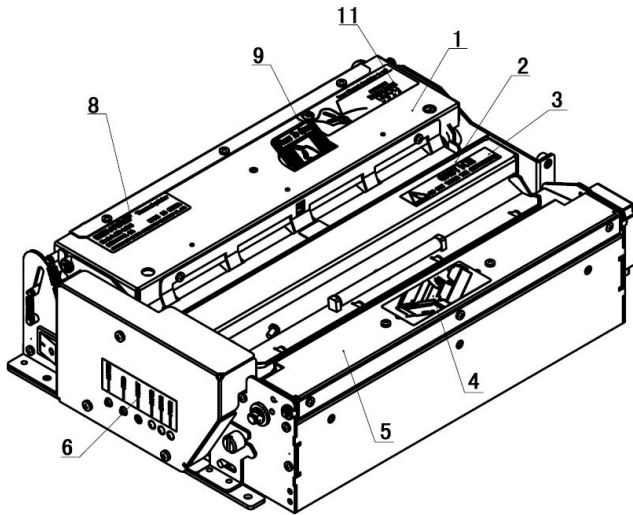


Figure 3.1.3 No paper frame structure

The appearance and color are rust iron material.

1-Printing organization

2- -Cutting the knife

3-Cut the knife label

4-Cover the flip label on the paper tolerance mechanism

5-Paper-capacity mechanism (PRE)

6-Key-button label

7-Vertical paper roll frame (special for vertical structure)

8- -Product label

9-Open the key

10-Paper label (special for vertical structure)

11-Paper label (special for horizontal, no paper roll frame structure)

12-Horizontal paper roll frame (special for horizontal structure)

3.2 Overall dimensions

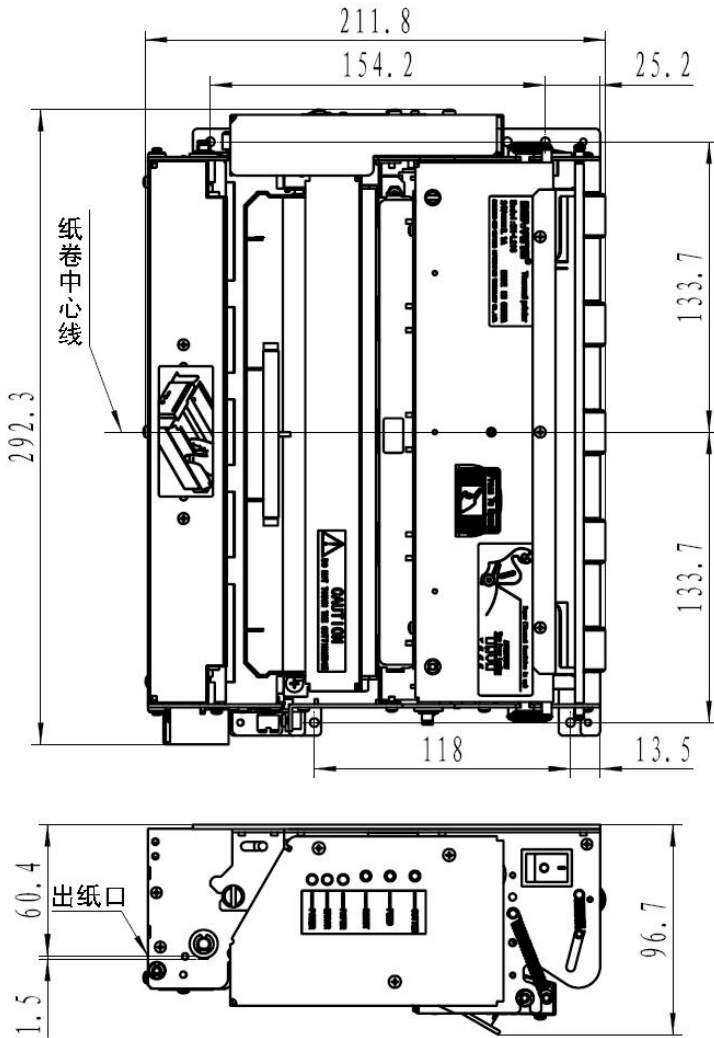


Figure 3.2.1 Size drawing of structure without paper frame (212*294*96.7mm)

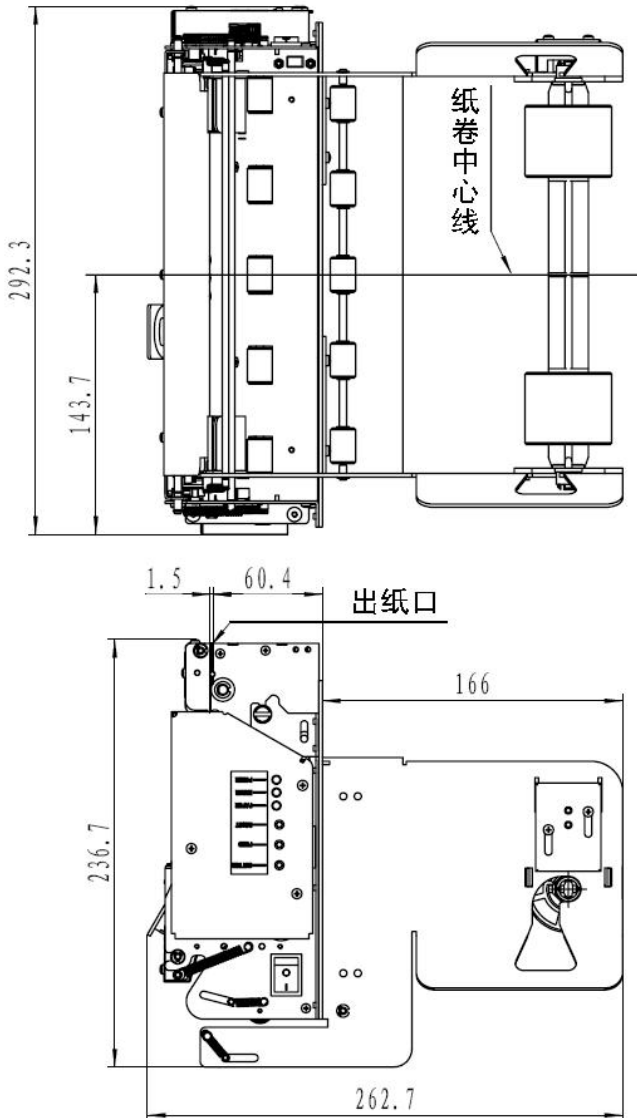


Figure 3.2.2 Structural Dimension Drawing of the Vertical Paper Stand (237 *

294 * 263mm)

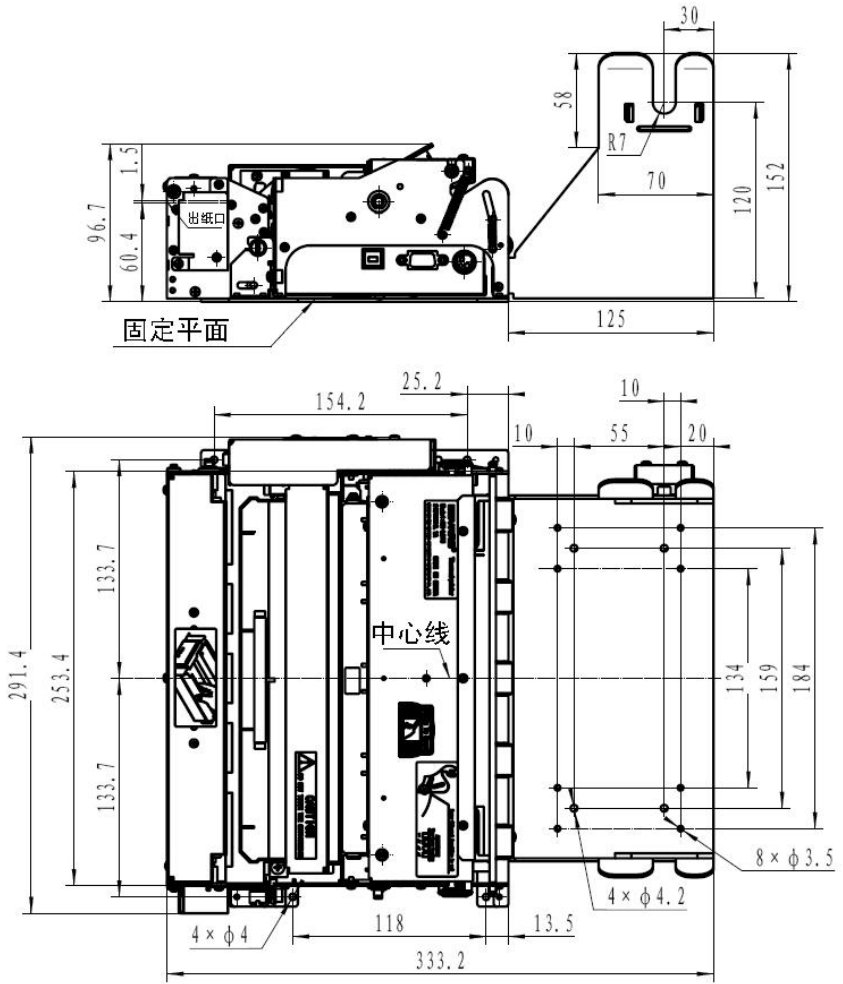


Figure 3.2.3 Structural Dimension Drawing of the Horizontal Paper Stand (335 * 294 * 150mm)